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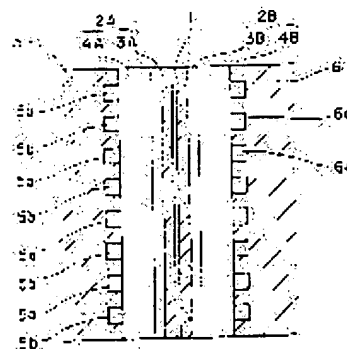
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(54) MANUFACTURE OF CONNECTING BODY BETWEEN SOLID HIGH POLYMER ELECTROLYTE MEMBRANE AND ELECTRODE

(57)Abstract:

PURPOSE: To increase the reaction efficiency and to realize a high output by connecting a solid high polymer electrolyte membrane and a gas diffusion electrode in the condition to permeate in the reaction membrane of the gas diffusion electrode.

CONSTITUTION: Hydrophile reaction membranes 3A and 3B are formed at the ratio 0.7:7:3 of platinum of the mean particle diameter 50 μm , a hydrophile carbon black of the mean particle diameter 450 μm , and polytetrafluoroethylene of the mean particle diameter 0.3 μm , and hydrophobic gas diffusion membranes 4A and 4B are formed at the ratio 7:3 of a hydrophobic carbon black of the mean particle diameter 420 μm and polytetrafluoroethylene of the mean particle diameter 0.3 μm . The reaction membranes 3 and the diffusion membranes 4 are superposed and rolled, and Pt 0.56mg/cm² is held to the reaction membrane 3 side in the hydrogen chloroplatinate oxidization and reduction method to make into gas diffusion electrodes 2A and 2B. To the



reaction membrane side of the electrodes 2, an alcohol solution of perfluorosulfuric acid polymer is spread. Two sheets of such gas diffusion electrodes 2 are connected at the reaction membrane sides, and a hot press is applied in the condition at 120 to 130°C and 60kg/cm² to make a connecting body. In such a way, the area the catalyst reaction is generated is increased, the adhesive strength is increased, and the moving resistance of H⁺ can be reduced.

LEGAL STATUS

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